Safety Instruction & Operator's Manual for

SNAPPER®

MODEL 2100 HHB HAND HELD BLOWERS

Thank you for buying a Snapper Product! Before operating your blower, read this manual carefully and pay particular attention to the Important Safety Instructions on page two. Remember that blowers and all power equipment can be dangerous if used improperly and keep in mind that safety requires careful use in accordance with the instructions and ...common sense!

GENERAL SPECIFICATIONS

TYPE	AIR COOLED, TWO- CYCLE
DISPLACEMENT	21.2 c.c.
FULL OPERATING RPM	7200-7800
FUEL MIX RATIO	32 to 1
FUEL TANK CAPACITY	17 oz./4 liter
SPARK PLUG TYPE	CHAMPION CJ8
SPARK PLUG GAP	.026"
IGNITION TYPE	SOLID STATE
UNIT WEIGHT (Approx)	9.9 lbs.
AIR VELOCITY (Approx)	136.9 MPH
AIR VOLUME	328 CFM
HANDLE ISOLATION MOUNTED	(2 MOUNTS)
ENGINE ISOLATION MOUNTED	(4 MOUNTS)
SPARK ARRESTOR SCREEN	TAIL END OF MUFFLER

SNAPPER POWER EQUIPMENT
McDonough, GA • 30253
A FUGUA INDUSTRIES Company

(8/88 ISSUE)

MANUAL #1-5961

IMPORTANT SAFETY INSTRUCTIONS

WARNING: Failure to comply with the following instructions may result in serious injury to the operator or other persons. The owner of the blower must understand these instructions and, furthermore, must allow only persons who understand these instructions to operate the unit. Each person operating the blower must be of sound mind and body and must not be under the influence of any substance which might impair vision, dexterity, or judgement. If you have any questions pertaining to your blower which your dealer cannot answer to your satisfaction, call or write the Customer Service Department at SNAPPER POWER EQUIPMENT, McDonough, Georgia, 30253. (Phone 404-957-9141).

TRAINING

1. Read this Manual carefully. Be thoroughly familiar with the controls and proper use of the equipment.

2. DO NOT allow children in yard when blower is operated.

3. DO NOT allow pre-teenager children to operate blower.

4. Allow only responsible teenagers with mature judgement to operate blower and only under close supervision.

5. Keep the area clear of all persons, particularly small children, and pets.

PREPARATION

1. DO NOT operate blower without safety glasses or goggles and dust mask when appropriate.

2. Thoroughly inspect the area where the blower is to be used and remove all stones, sticks, wire, bones and other objects that could cause injury if thrown at high speeds.

3. Do not operate blower when barefoot or wearing open sandals. Always wear substantial footwear and long pants.

4. Never operate blower without proper guards, shields or other safety protective devices in place and properly connected. Inspect to determine that these safety devices are installed properly, are in good repair, and operate properly. If the condition or operation of these devices are questionable, they must be repaired or replaced before using the blower.

5. Fill gasoline tank before starting engine. Mix in an approved gasoline container. Do not smoke near open gasoline container. Do not fill gasoline tank indoors or when engine is running. Wipe off any spilled gasoline before starting engine. Move away from fueling site before starting engine. Do not run engine indoors.

6. Use blower only in daylight or in good artificial light.

7. Operate only where firm footing is assured. DO NOT operate from a ladder or any other place where use of hands would ordinarily be necessary to prevent falls.

OPERATION

1. Do not put hands near rotating parts while engine is running.

2. Stop or idle engine when crossing gravel drives, walks, or roads, and under any conditions where thrown objects might be a hazard.

3. Stop engine before leaving unit.

4. Before cleaning, repairing or inspecting, make certain engine has stopped and is cooled. Disconnect and secure spark plug wire away from plug to prevent accidental starting.

5. Be careful to avoid contacting hot engine parts against trees, brush or other flammable items.

MAINTENANCE AND STORAGE

1. Keep all nuts, bolts, and screws tight to be sure unit is in safe operating condition.

2. Never store unit with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.

3. To reduce fire hazard, keep unit free of grass, leaves or excessive grease.

4. Have your blower inspected and serviced each year by an authorized Snapper dealer. Determine if any additional devices are available which might upgrade the safety of your unit.

5. Use only factory specified Snapper attachments, accessories and fasteners.

CAUTION: DO NOT OPERATE BLOWER WITHOUT FAN INLET COVER

A.L. Tate & associates, inc.

OPERATING INSTRUCTIONS

PRE-MIX FUEL (32 to 1 RATIO)

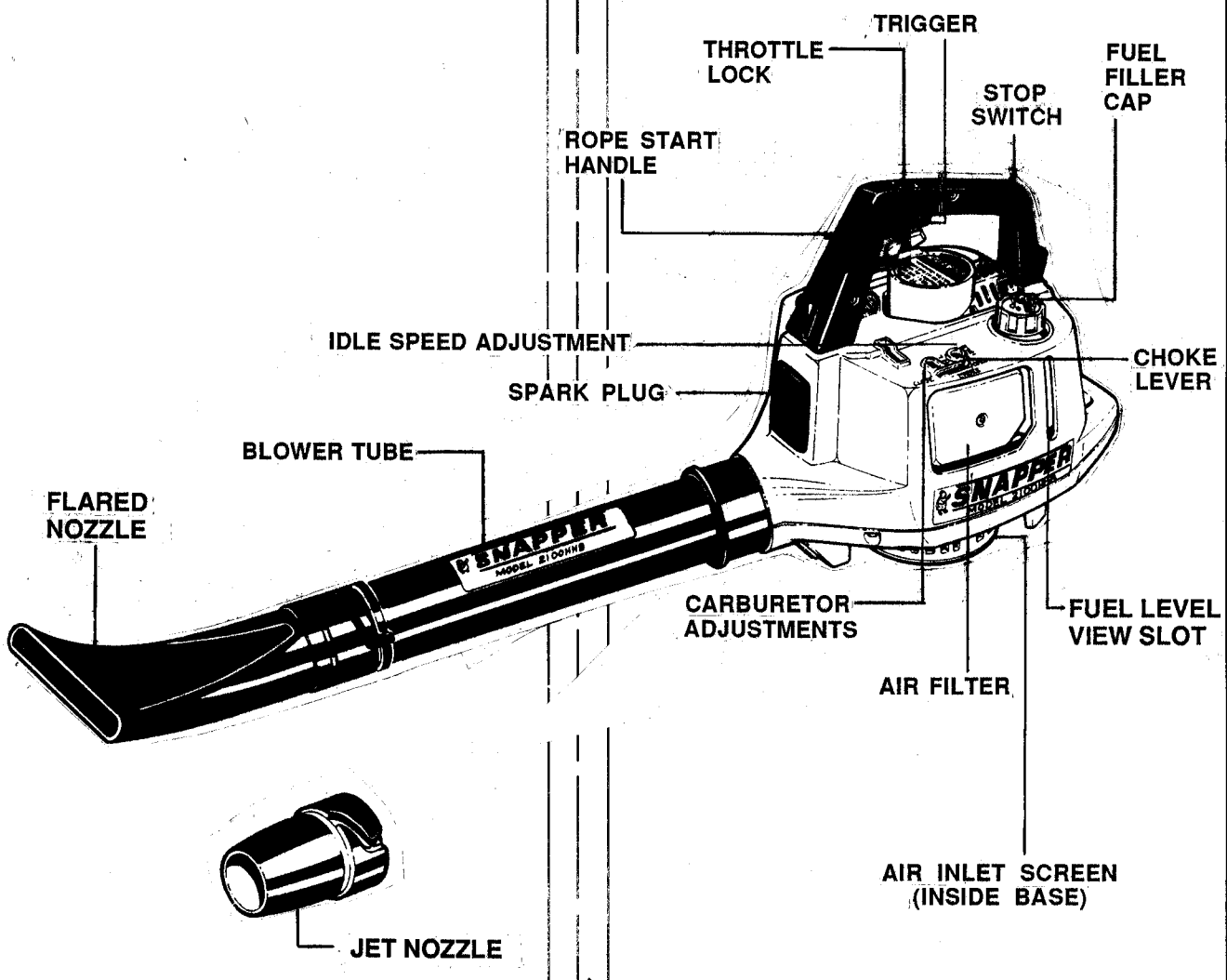
For proper lubrication, the engine must operate on an exact mixture of gasoline and 2 cycle air-cooled engine oil. Use a 32 to 1 mixture. Use a good quality regular grade leaded or unleaded gasoline and SNAPPER special formulated 2-cycle engine oil. Do not use the special 50:1 ratio oils. The 32 to 1 ratio equals 4 ounces of oil to each gallon (U.S. Standard) of gasoline, (or 16 oz. to 4 gallons gasoline). Refer to the following chart for correct mixtures.

Pre-Mix the fuel in an approved container while observing all safety precautions relating to handling of fuel. Add some gasoline to the container first then the oil. Close the container and shake vigorously to thoroughly mix the fuel; open the container and add the remaining amount of gasoline to correct the ratio. Shake the container to mix the fuel each time before filling the blower fuel tank. **DO NOT** add fuel to unit while hot...allow engine to cool.

32:1 RATIO U.S. STANDARD* FLUID MEASUREMENTS

GALLONS GASOLINE*	1	2	3	4	5
OUNCES 2-CYCLE OIL	4	8	12	16	20

WEIGHT ABOUT 9 3/4 POUNDS



ACCESSORIES (SEE PAGE 7)

FIG.1- LOCATION OF CONTROLS & FEATURES

Number

OPERATING INSTRUCTIONS (continued)

Make sure each person you authorize to operate your blower carefully reads and understands the important safety instructions on page 2 of this manual and knows how to stop the unit quickly in preparation for possible emergency situations. To stop, press and hold the red **STOP SWITCH** (Figure 2) down until the engine comes to a complete halt.

PRE-START PROCEDURE

Perform the following services before each start-up.

- AIR INLET SCREEN - Check to make sure screen is clean and free of debris.
- AIR FILTER - Check filter. Clean if needed. (Refer to service section).
- FUEL - Fill tank with properly pre-mixed fuel (see page3), reinstall and securely tighten cap, wipe up any spilled fuel before attempting to start.
- BLOWER & NOZZLE TUBE - Check to make sure these are in place and tight.

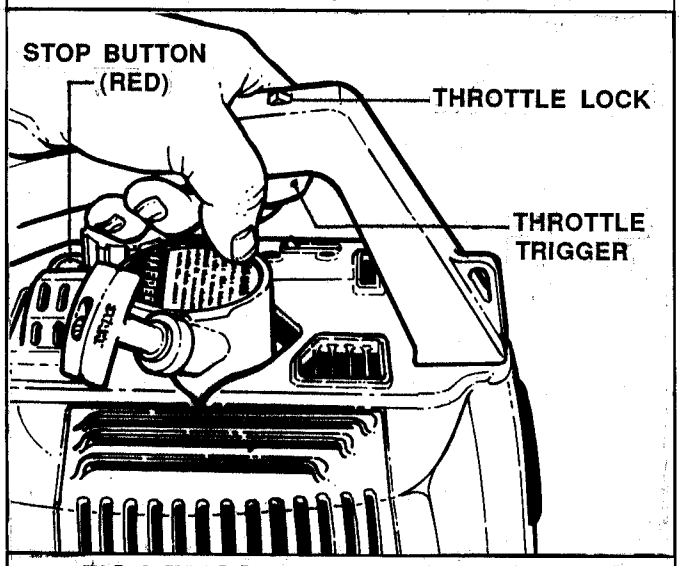


FIG.2-TRIGGER & LOCK OPERATION

START-STOP PROCEDURE

Place the unit on a clean, relatively flat surface outdoors with the nozzle pointing away from areas where the air blast could cause injury or damage and start the unit as follows.

STEP 1: Leave THROTTLE TRIGGER in Idle Position.

STEP 2: Push the **CHOKE LEVER** forward to "Close" position for cold starting - **NOTE:** Use partial or no choke with warm engine.

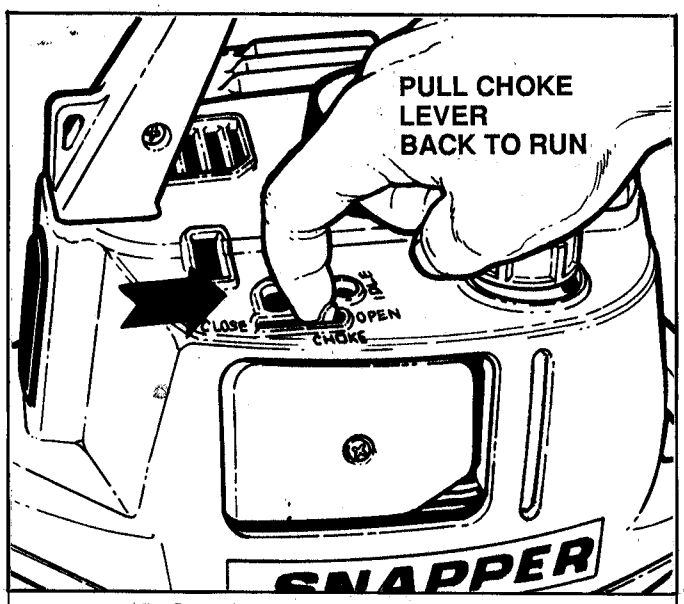


FIG.3-CHOKE OPERATION

STEP 3: Hold the unit down firmly with one hand, pull the **STARTER HANDLE** with fast wrist action until engine "pops", then pull choke in part way and continue pulling rope until engine starts. **NOTE:** To prolong the life of starter, **DO NOT** pull rope all the way out or allow the handle to snap back.

STEP 4: Allow brief warm up period at partial choke (about 5 seconds), then gradually pull the CHOKE LEVER back to "OPEN" position.

STEP 5: To stop the engine, press the **STOP BUTTON** and hold down until the engine comes to a complete halt.

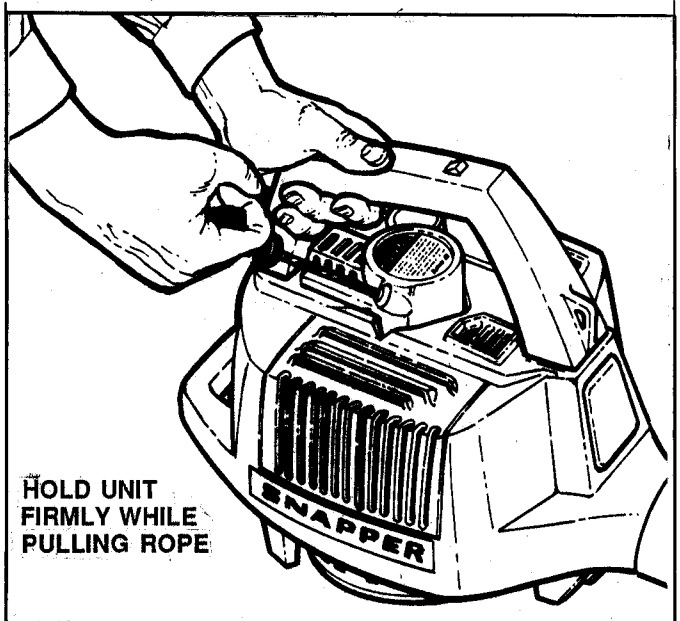


FIG.4-ROPE START PROCEDURE

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BLOWER OPERATION

Remember to wear eye and/or face protection to prevent injury from objects ricocheting into eyes and face. Also wear a dust mask when working under dusty conditions. Use the flared nozzle to sweep wide areas or the jet nozzle to direct the air blast in a more precise area. Maintain firm footing and balance at all times - do not operate while attempting to climb ladders or on steep slopes or roofs. Direct air blast away by moving outward from solid objects such as walls, vehicles, fences, etc. Remember that the air blast can injure tender plants and shrubs. Run the engine at full power by locking the trigger in full up position or vary speed to suit conditions by manually operating the trigger. Push lock out switch forward to unlock the trigger and allow the engine to return to idle speed. Allow brief cooling off period at idle after operating under high heat conditions.

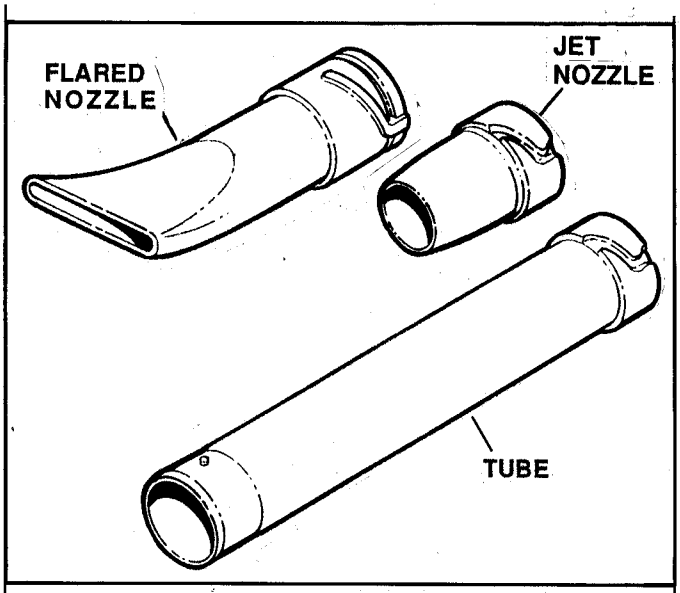


FIG.5 NOZZLE SELECTION

SERVICE

SERVICE PROCEDURE

To retain the original quality to your blower, be sure to use only genuine **SNAPPER** replacement parts. Contact your **SNAPPER** dealer for service assistance and replacement parts. Always mention the model and serial numbers as found on the nameplate of your unit. The information in the parts section furnished with your unit is subject to change. Complete, up-to-date parts information is available at your dealer. For the nearest **SNAPPER** dealer, check the yellow pages of your telephone directory under the heading **LAWNMOWERS**.

AIR INLET SERVICE

Check condition of the blower air intake openings frequently with the engine off. Tilt the unit over on its side to check condition of the openings. Remove all obstructions and leaves, dust, dirt that has been drawn into this area. To prevent buildup, do not operate unit when it is placed on the inlet ring especially in a dirty, dusty area. The blower fan located inside the housing also serves to circulate cooling air throughout the blower unit so it is important to keep the openings clear at all times. **ALSO, KEEP COVER CLOSED FOR PROPER ENGINE COOLING. FAILURE TO DO SO WILL CAUSE ENGINE FAILURE AND VOID YOUR WARRANTY.**

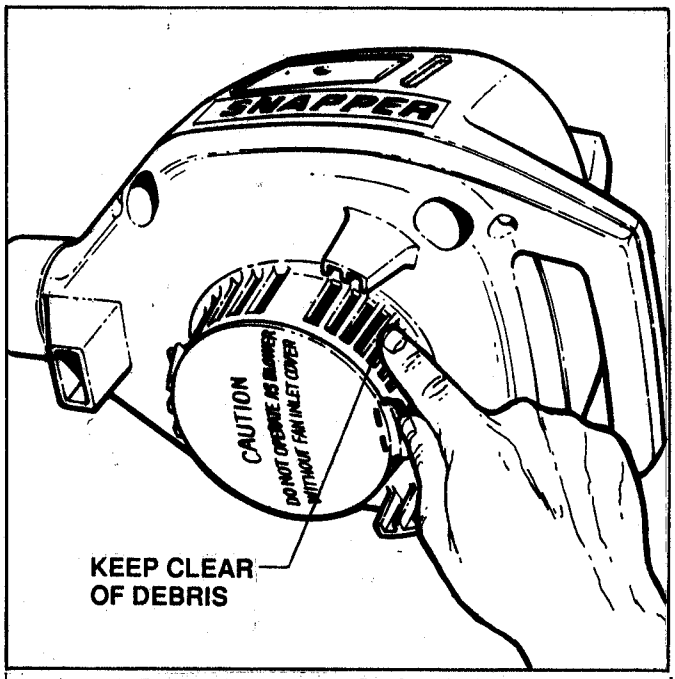


FIG. 6-AIR INLET HOUSING CHECK

AIR FILTER SERVICE

Check the condition of the air filter before each startup and after ever five hours of operation, under normal conditions, or more frequently under dusty, dirty conditions. A clogged air filter will cause an increase in fuel consumption and difference in engine performance. To service, remove cover by loosening screw (screw is retained by cover). Remove circular foam filter. Wash the filter element in solvent and squeeze dry. Oil filter with small amount of SAE 30 engine oil. Squeeze filter again to distribute oil evenliy. **DO NOT** use gasoline. Replace foam filter if it becomes torn or hardened by age. **DO NOT** operate blower without filter as dirty, unfiltered air will quickly ruin the engine.

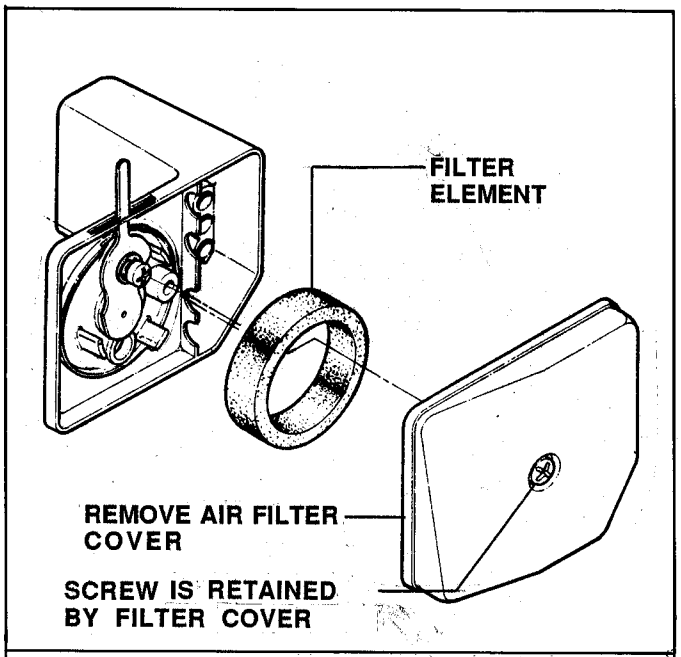


FIG.7-AIR FILTER SERVICE .

SPARK PLUG SERVICE

The spark plug on a 2-cycle engine will quickly become oil saturated if the engine is run at low speed for any length of time. The spark plug electrodes also tend to become carbon fouled. Check the plug frequently especially if hard starting is experienced. The spark plug is located inside the opening at the front center housing of the unit.

Remove the rubber access cover, pull the spark plug boot and use a spark plug socket wrench to remove the plug. Clean the electrodes and reset spark gap to .026" (0.6 - 0.7 mm) if the plug is in condition to be reused. Replace the plug with a Champion CJ-8 or equivalent spark plug. Turn the plug in finger tight, then tighten another 1/8 to 1/4 turn with the spark plug wrench. DO NOT overtighten as this could crack the cylinder.

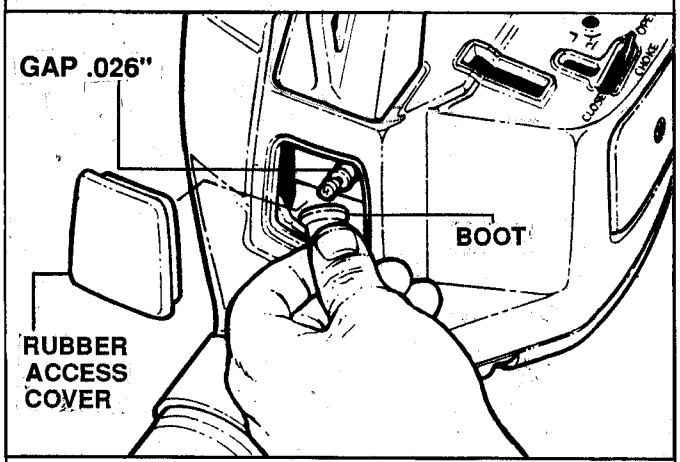
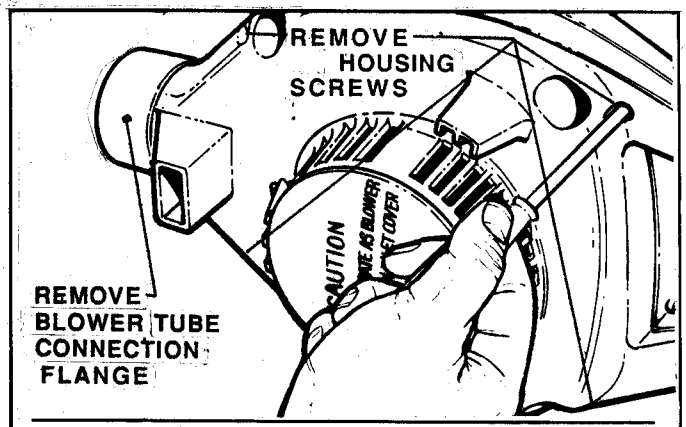


FIG.8- SPARK PLUG LOCATION

IMPORTANT: ALWAYS RE-INSTALL RUBBER ACCESS COVER AFTER CHANGING OR CHECKING PLUG. IT IS NECESSARY FOR PROPER COOLING OF ENGINE.

SPARK ARRESTOR/MUFFLER SERVICE

The spark arrestor and muffler are located inside the blower housing. The spark arrestor should be cleaned when the performance of the blower is noticeably decreased - motor slows down during operation, sluggish running, etc. To remove the spark arrestor, lay the blower on its side, remove the blower tube connection flange, and remove the screws holding the bottom housing. Remove spark arrestor by turning and pulling up to free from detent groove. Use wire brush to remove carbon build-up on arrestor screen. Finally clean in solvent and allow to dry before reinstalling. Replace if damaged.



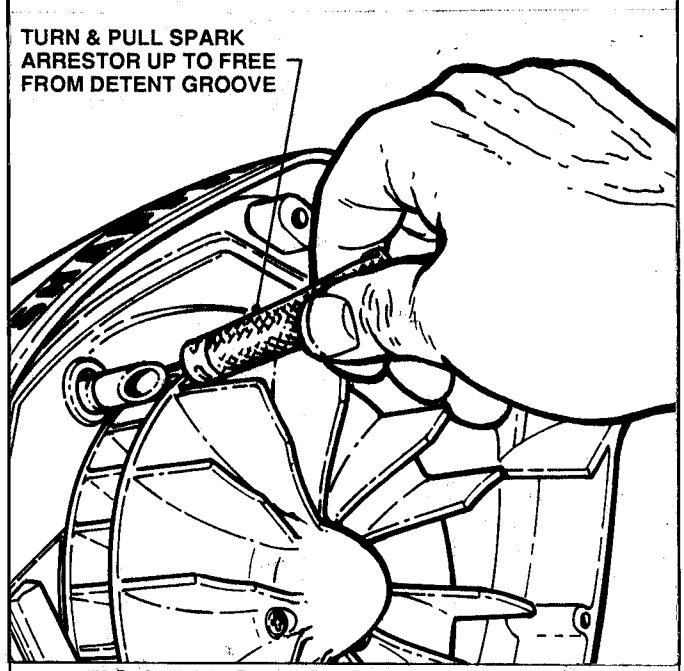


FIG.9-REMOVING SPARK ARRESTOR

The muffler requires no service. Replace as required.

FUEL SYSTEM SERVICE

Gasoline begins to break down after a short period of time to form gum compounds which can cause hard starting and eventually lead to engine damage. To avoid this, use only fresh, recently mixed fuel. Drain all fuel from the tank or run engine until the tank is dry if the unit is not to be used again for any period longer than 30 days.

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SERVICE PROCEDURE (continued)

CARBURETOR ADJUSTMENTS: Do not tamper with carburetor settings. If the engine will not start, stalls at idle, or stalls under rapid acceleration and the cause is not due to clogged air cleaner, fuel filter, bad muffler or fouled spark plug, readjust the carburetor as follows with engine stopped.

1. Turn the **L** needle to the right until it bottoms lightly - do not force closed. Then turn it to the left one (1) turn.

2. Turn the **H** needle to the right until it bottoms lightly - do not force closed. Then turn it to the left one (1) turn.

3. Start engine and adjust **IDLE SPEED** until the engine keeps idling without stalling (at about 3000 RPM if tachometer is available).

4. Test operate. Operating range should be within 7200 to 8000 RPM. Fine tune as needed by slight readjustment of **H** and/or **L** needles.

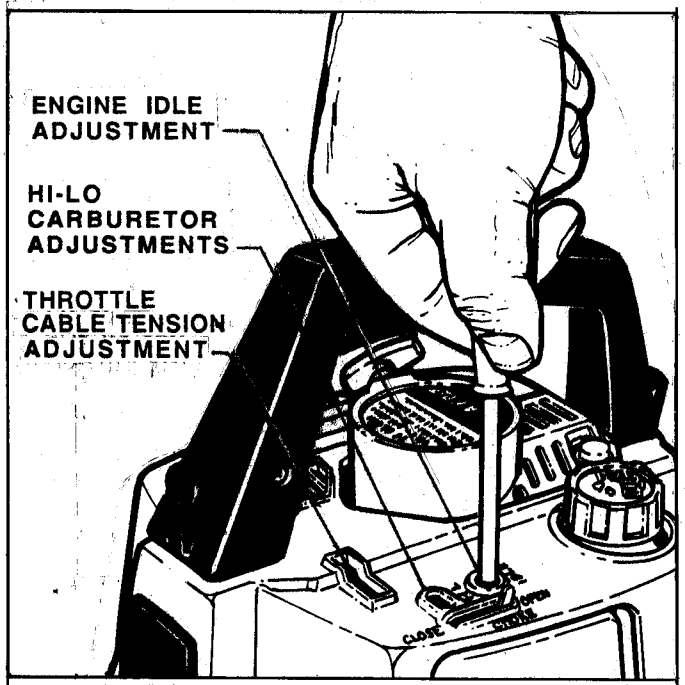


FIG.10-CARBURETOR ADJUSTMENTS

FUEL FILTER SERVICE: A clogged fuel filter can cause poor performance. Check the condition of the filter at frequent intervals. The fuel filter is located at the end of the black fuel line inside the fuel tank. Make a small hook in a stiff wire, hook the line and filter and pull out of the tank. The filter can be replaced as a unit or individual parts can be replaced if damaged. (Refer to the parts section). Carefully handle parts as some components are small and can be easily lost. Pry the retainer open with a small blade screwdriver. Remove the felt filter and screen from the weight, wash all parts in clean gasoline, (follow all precautions), then clip fuel line to assembly and reinsert serviced unit into tank.

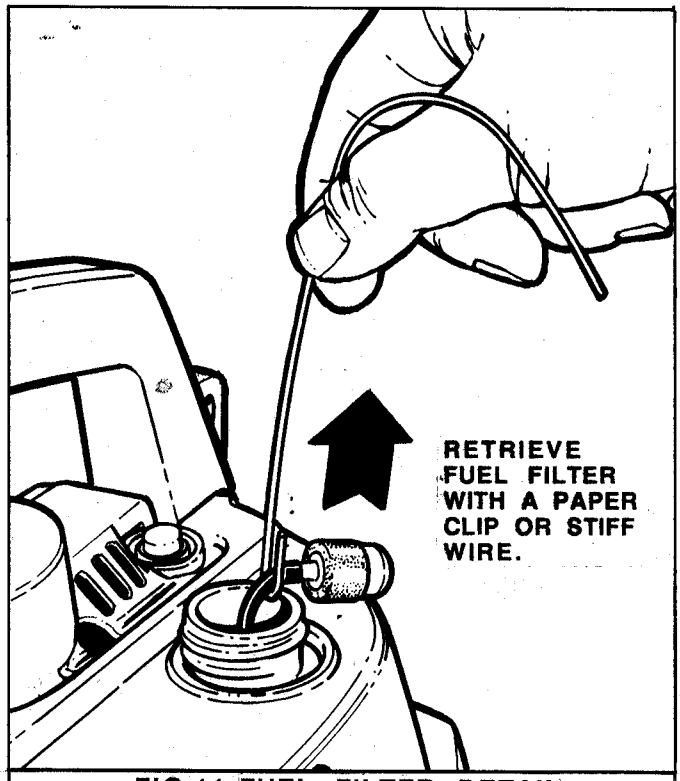


FIG.11-FUEL FILTER DETAIL

ADJUSTING THROTTLE CABLE TENSION
Insert wrenches through adjusting slot as shown in Figure 10. With one wrench (Size 10 mm), securing hex nut next to carburetor insulator, use the other wrench (Size 8 mm) to adjust throttle cable tension.

OFF-SEASON STORAGE
Before storing the unit during the off-season or for any period where the unit will not be used for 30 days or more, preserve the unit by taking the following steps:

1. Run the engine dry of fuel or drain all fuel from the tank.

2. Remove the spark plug, squirt small amount of 2-cycle engine oil into cylinder, pull rope starter several times, and reinstall the plug.

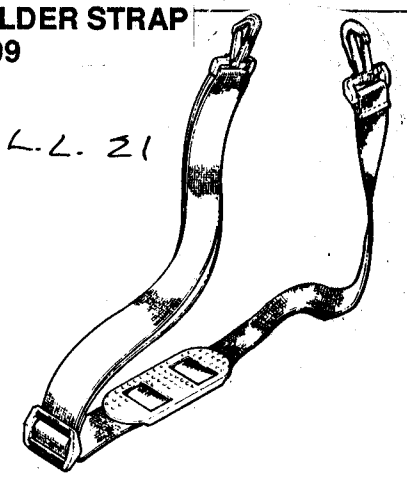
3. Place dust cover over unit and store in high area out of reach of children and dry shed protected from weather.

OPTIONAL ACCESSORIES
In addition to the carrying strap option shown on Page 8 contact your **SNAPPER** dealer for information on the Gutter Cleaning Kit and other accessories for your **Model 2100 - HHB Blower.**

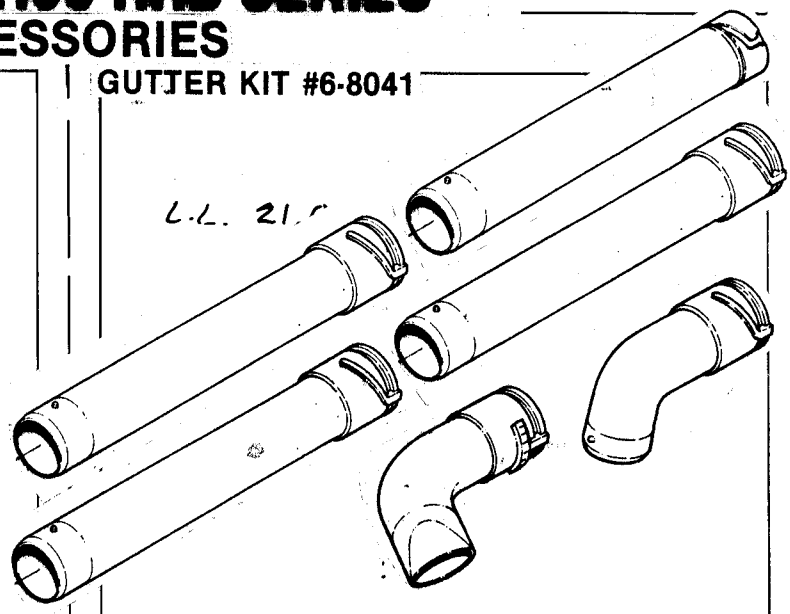
SNAPPER 2100 HHB SERIES

ACCESSORIES

SHOULDER STRAP #6-8109



GUTTER KIT #6-8041



MANUFACTURER'S 2 YEAR LIMITED WARRANTY

For two (2) Years from purchase date for the original purchaser's residential, non-commercial use [ninety (90) days from purchase date for the original purchaser's commercial, rental, or other non-residential use], and for 3 years on the ignition module, SNAPPER POWER EQUIPMENT, through any SNAPPER dealer will replace, free of charge, any part or parts found upon examination by the factory at McDonough, Georgia, to be defective in material or workmanship or both.

All transportation cost incurred by the purchaser in submitting material to a SNAPPER dealer for replacement under this warranty must be borne by the purchaser.

This warranty does not apply to parts that have been damaged by accident, alteration, abuse, improper lubrication, normal wear, or other cause beyond our control.

There is no other express warranty.

Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to two (2) years from purchase date for the original purchaser's residential, non-commercial use [ninety (90) days from purchase for the original purchaser's commercial, rental or other non-residential use], and to the extent permitted by law any and all implied warranties are excluded. This is the exclusive remedy. Liabilities for consequential damages, under any and all warranties are excluded.

Some states do not allow limitations on how long an implied warranty lasts,or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

WARNING: THE USE OF REPLACEMENT PARTS OTHER THAN GENUINE SNAPPER PARTS MAY IMPAIR THE SAFETY OF SNAPPER PRODUCTS AND WILL VOID ANY LIABILITY AND WARRANTY BY SNAPPER ASSOCIATED WITH THE USE OF SUCH PARTS.

IMPORTANT: Please fill out the attached SNAPPER Product Registration Card immediately and mail to: SNAPPER POWER EQUIPMENT, McDONOUGH, GEORGIA 30253

SNAPPER POWER EQUIPMENT
McDonough,GA•30253

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